

**COMMONWEALTH OF VIRGINIA  
Department of Environmental Quality  
Southwest Regional Office**

**STATEMENT OF LEGAL AND FACTUAL BASIS**

Vaughan Furniture Company  
B.C. Vaughan Plant  
Galax, Virginia  
Permit No. SWRO10443

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Vaughan Furniture Company has applied for a Title V Operating Permit for its B.C. Vaughan Plant located on Creekview Drive in Galax, Virginia. The Department reviewed the application and prepared a Title V Operating Permit. This permit is a renewal of the current Title V operating permit.

Engineer/Permit Contact:

Date:

Air Permit Manager:

Date:

Deputy Regional Director:

Date:

## **FACILITY INFORMATION**

### Permittee

Vaughan Furniture Company  
B.C. Vaughan Plant  
Creekview Drive  
P.O. Box 1489  
Galax, VA 24333

Plant ID No. 51-640-00018

## **SOURCE DESCRIPTION**

SIC Code 2511 – Wood Household Furniture, Except Upholstered.

The B.C. Vaughan plant is located approximately ½ mile off Route 721 on Creekview Drive in Galax, Virginia. The facility, which occupies approximately 54.2 acres in an industrial/residential setting, manufactures wood furniture consisting primarily of case goods (SIC 2511).

Raw lumber is dried in kilns, where the moisture content is reduced to approximately 8 percent. There are a total of six dry kilns on-site, five with a capacity of 55,000 board feet, and one with a capacity of 78,000 board feet. A full kiln of wood can be dried in approximately two weeks.

There are two water tube boilers on site – one Nebraska wood-fired unit rated at 20 mmBtu/hr and one Bigelow Type B wood and/or coal-fired boiler rated at 28 mmBtu/hr. Both boilers incorporate multicyclones to control particulate emissions. Steam from the boilers is used to heat the kilns and drying ovens on the finishing line.

The dried lumber enters the rough end machining operations where it is cut to the desired dimensions. Scrap wood is conveyed to a hog where it is reduced in size and conveyed to the wood silo. The dimensioned wood passes through a variety of sanding operations before assembly.

Four baghouses make up the wood dust collection system, which removes wood dust and chips from the various processing operations. The collected woodwaste is used as fuel for the boilers.

Gluing operations occur throughout the manufacturing process. These include the gluing of lumber together with chipboard or plywood, the veneering of panels, the rimming and edging of panels, gluing of various laminates, the assembly, and the repair of furniture. The various glues are applied with brushes, spray guns, bottles, cold presses, roll coaters, and hot presses.

After the wood components are assembled, they are transported to the finishing operations. The finishing of wood furniture is a multi-step process that involves the application of many layers of finishing materials to achieve the desired appearance. The various finishes can be applied by brushing, spraying, flat line printing, roll coating, silkscreen printing, stenciling, dipping, curtain coating, rubbing, etc. At the B.C. Vaughan facility, finishing materials are applied in ten spray booths using both high volume/low pressure (HVLP) and airless spray guns. Materials applied include fillers, edge fillers, wood preservatives, stains, toners, glazes,

washcoats, and top coats such as sealers and lacquers. Finishing operations also include the drying and curing of the finish, which is accomplished with air drying (flash-off area) and heat (ovens). Finishing operations also include the stripping (wash-off) and repairing of furniture and parts. Minor finish repairs are frequently made with spray cans at various locations throughout the plant.

After all of the finishes are applied, the furniture goes through final inspection, packing, and is stored in the warehouse prior to shipment to the customer.

The Chestnut Creek Veneer Plant is a wood veneer manufacturing facility located on the B.C. Vaughan plant site. The Chestnut Creek plant provides veneering services for the other three Vaughan Furniture plants located in Galax. The plant includes two glue spray booths, veneer splicers and various cutting machines. The veneer plant was originally permitted in January 1992.

The B.C. Vaughan plant is a Title V major source of VOC and total hazardous air pollutant (HAP) emissions. The source is located in an attainment area for all criteria pollutants. The facility is permitted under a New Source Review permit issued November 18, 2005.

## **COMPLIANCE STATUS**

A full compliance evaluation of this facility, including a site visit, is conducted every other year. In addition, all reports and other data required by permit conditions or regulations, which are submitted to DEQ, are evaluated for compliance. Based on the most recent compliance evaluations, the facility has not been found to be in violation of any state or federal applicable requirements at this time.

## **EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION**

The emissions units at this facility consist of the following:

### *Boilers*

There are two water tube boilers on-site, neither of which is subject to NSPS Subpart Dc. One boiler is permitted, burns both wood and coal, and has a rated heat input of  $28 \times 10^6$  Btu/hr. The second boiler is registered (unpermitted), burns only wood, and is rated at  $20 \times 10^6$  Btu/hr. Steam produced by the boilers is used to heat the dry kilns and the drying ovens in the finishing operations. Both of the boilers utilize multicyclone collectors to control particulate emissions. The coal and wood fuels are stored in silos.

### *Woodworking*

The woodwaste generated from the various sawing, planing, and sanding operations is controlled by a dust collection system consisting of four baghouses. The collected woodwaste is used as boiler fuel.

### *Gluing Operations*

The wood furniture gluing operations occur throughout the manufacturing process. The gluing operations include attaching chipboard and plywood to lumber, the veneering of panels, the rimming and edging of panels, gluing of various laminates, the assembly, and the repair of

furniture. The glues are applied with brushes, spray guns, bottles, cold presses, roll coaters, and hot presses.

The gluing operations at the Chestnut Creek Veneer Plant are specifically limited in the NSR permit (dated October 17, 2002). Fiberglass filters are used to control particulate emissions from the two glue spray booths.

#### *Finishing Operations*

Many different finishing materials are applied to the furniture surfaces to achieve the desired appearance. These finishes are applied by brushing, spraying, flat line printing, roll coating, silkscreen printing, stenciling, dipping, curtain coating, rubbing, etc. Finishing materials are applied in ten (10) spray booths using both high volume/low pressure (HVLP) and airless spray guns. Materials applied include fillers, wood preservatives, stains, toners, glazes, washcoats, and top coats such as sealers, and lacquers. Air drying (flash-off) and heat (ovens) are used to dry and cure the finish.

Emissions from finishing operations include particulate (PM/PM-10), VOC, and HAP's. Water pan or dry filters are utilized in each of the spray booths to control particulate emissions from overspray. There are no control devices to reduce the emissions of VOC or volatile HAP.

#### **EMISSIONS INVENTORY**

The 2005 annual emissions are summarized in the following table:

2005 Criteria Pollutant Emissions (Plant-wide Total)	
Pollutant	Tons Emitted
PM <sub>10</sub>	2.82
VOC	169.07
NO <sub>x</sub>	13.71
SO <sub>2</sub>	0.47
CO	13.30

#### **EMISSION UNIT APPLICABLE REQUIREMENTS**

##### **Boilers**

##### **Bigelow Type B Wood/Coal-fired Boiler (B1) Nebraska Wood-Fired Boiler (B2)**

**Limitations:** The following limitations are State BACT requirements from Conditions 3, 9, 10, 11, 12, and 15 of the Minor NSR permit issued November 18, 2005:

- Condition 3 requires that PM and PM<sub>10</sub> emissions from the Bigelow boiler (B1) are to be controlled by two Barron Base III multicyclones in series, or equivalent. The collectors shall be provided with adequate access for inspection.
- Condition 9 specifies that the approved fuels for the Bigelow boiler (B1) are wood waste and bituminous coal. A change in fuels may require a permit to modify and operate.

- Condition 10 limits annual fuel consumption in the Bigelow boiler (B1) to 6,000 tons of wood waste and 1,000 tons of coal, calculated as the sum of each consecutive 12 month period.
- Condition 11 specifies that the ratio of the heat and sulfur contents of each shipment of coal to be burned in the Bigelow boiler (B1) shall be maintained such that the following equation is valid:

$$\frac{\text{Coal Heat Content (Btu/lb, dry basis)}}{\text{Coal Sulfur Content (lbs of Sulfur per 100 lbs of Coal, dry basis)}} \geq 16,250$$

Vaughan Furniture must maintain records of all coal shipments purchased, indicating the name of the coal supplier, sulfur, moisture and heat contents per shipment. The records are to indicate the methods used in the coal analysis, the location (mine, seam, or storage facility) of the coal when sampled, and the amount of coal burned per day. These records are to be available on site for inspection by DEQ personnel and shall be kept on file for the most current five year period.

- Condition 12 limits emissions from the Bigelow boiler (B1) to the following:

Pollutant	lbs/mmBtu	lbs/hr	Tons/yr
PM	0.30		17.37
PM-10		7.56	15.93
SO <sub>2</sub>	1.20		17.54
VOC		0.49	0.86
NO <sub>2</sub>		14.56	30.52
CO		23.80	43.30

- Condition 15 limits visible emissions from the Bigelow boiler (B1) exhaust to 20 percent opacity except during one six-minute period in which the opacity shall not exceed 27 percent, as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except startup, shutdown, or malfunction.
- 9 VAC 5-40-940 limits visible emissions from the Nebraska wood-fired boiler (B2) exhaust to 20 percent opacity except during one six-minute period in which the opacity shall not exceed 60 percent, as determined by EPA Method 9 (per 9 VAC 5-40-20A.2). 9 VAC 5-40-20A.3 stipulates that this condition applies at all times except startup, shutdown, or malfunction, however, this exclusion is not federally enforceable and is not included in the Title V permit.
- 9 VAC 5-40-900 limits particulate emissions from the Nebraska wood-fired boiler (B2) to 0.50 lbs/mmBtu.

$$\begin{aligned} \text{Allowable lbs/mmBtu} &= 1.0906 \times (\text{Max Boiler Heat Input, mmBtu/hr})^{(-0.2594)} \\ &= 1.0906 \times 20^{(-0.2594)} = 0.50 \text{ lbs/mmBtu} \end{aligned}$$

Uncontrolled emissions from a typical wood-fired boiler are estimated to be 0.4 lbs/mmBtu (per AP-42 Table 1.6-1). Since the particulate standard is greater than the expected emission rate, the source may demonstrate compliance with the 9 VAC 5-40-900 particulate standard by maintaining boiler fuel records.

- 9 VAC 5-40-930 limits sulfur dioxide (SO<sub>2</sub>) emissions from the Nebraska wood-fired boiler to 52.8 lbs/hr (20 mmBtu/hr x 2.64 lbs SO<sub>2</sub>/mmBtu).

### Monitoring & Recordkeeping:

As required in Condition 11 of the Minor NSR Permit issued November 18, 2005, the Vaughan Furniture Company will maintain records of all coal shipments purchased, indicating the name of the coal supplier, sulfur, moisture, Btu and ash content per shipment. The records shall also indicate the methods used in the coal analysis, the location of the coal when sampled, and the amount of coal burned per day. These records are to be available on site for inspection and shall be kept on file for the most current five-year period.

Conditions 17.b requires that records of the daily, monthly, and annual tons of wood and coal combusted in the Bigelow boiler be maintained on site.

The following emission factors will be used to show compliance with the emission limits that will be listed in the Title V permit:

Regulated Pollutant	Emission Factors		Efficiency of Control Device	
	Wood Combustion (lbs/ton)	Coal Combustion (lbs/ton)	Nebraska Boiler (single multicyclone)	Bigelow Boiler (dual multicyclones)
PM	6.4	66	82%	95%
PM <sub>10</sub>	5.76	13.2	68.5%	90%
SO <sub>2</sub>	0.4	38 * S%	-	-
NO <sub>x</sub>	7.84	11	-	-
CO	13.6	5	-	-
VOC	0.278	0.05	-	-

The wood combustion emissions factors were obtained from AP-42 Tables 1.6-1, 1.6-2, and 1.6-3. The coal combustion emission factors were obtained from AP-42, Tables 1.1-3, 1.1-4, and 1.1-14.

The facility is a major source subject to Title V permitting and therefore subject to 40 CFR Part 64 - Compliance Assurance Monitoring (CAM). An emission unit is subject to CAM if it meets all of the following criteria on a pollutant-by-pollutant basis:

- a. Emits or has the potential to emit uncontrolled quantities of one or more regulated air pollutants at or above major source levels,
- b. Is subject to one or more emissions limitations for the regulated air pollutants for which it is major before control, and
- c. Uses an add-on control device to achieve compliance with the emissions limitations.

The Bigelow Type B watertube boiler and the Nebraska watertube boiler are emission units (E.U.I.D. Nos. B1 and B2) that meet all of the above criteria as follows:

- a. The boilers emit uncontrolled quantities of particulate matter above major source levels.

- b. The boilers are subject to emissions limits for particulate matter .
- c. The boilers use a multicyclone to comply with the limit on particulate matter.

The permittee uses a magnehelic gauge as a pressure drop indicator for the multicyclone collectors on the boilers. The permittee will be required to monitor, operate, calibrate and maintain the device according to the CAM plan in Section III.C. of the Title V permit.

The periodic monitoring also requires weekly visible emission checks. Requirements are as stated in Section III.B.2. of the Title V permit. Recordkeeping requirements associated with the CAM and periodic monitoring are as stated in the Title V permit.

#### MACT Requirements – Boilers B1 and B2

The Maximum Achievable Control Technology (MACT) Standard for industrial boilers, under 40 CFR 63, Subpart DDDDD (National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters), and 9 VAC 5 Chapter 60, was proposed on January 13, 2003, and promulgated on September 13, 2004. The MACT standard is applicable to this facility for the existing large boilers Bigelow B1 and Nebraska B2 per 40 CFR 63.7475, 40 CFR 63.7485, and 40 CFR 63.7490 (d). Refer to Section IV of the Title V permit for requirements.

#### **Testing:**

The permit does not require source tests. A table of test methods has been included in the permit if testing is performed. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

#### **Streamlined Requirements:**

There are no streamlined requirements for the boilers.

#### **Woodworking**

##### **Limitations:**

The woodworking operations at the B.C. Vaughan plant are not limited by permit, and thus the requirements of Chapter 40, Rule 4-17, apply:

- 9 VAC 5-40-2270 requires that particulate emissions from woodworking operations be controlled by adequate ductwork and properly designed collectors. Therefore, the permit will require that particulate emissions from the woodworking operations be controlled by the four baghouses (fabric filters) currently in use at the plant. 9 VAC 5-40-2270 B limits the particulate emissions from the control device to 0.05 grains per standard cubic foot of exhaust gas. Note that since the woodworking operations are subject to the provisions of 9 VAC 5-40-2270, the provisions of 9 VAC 5-40-260, Standard for Particulate Matter, do not apply (per 9 VAC 5-40-240 D).
- 9 VAC 5-40-2280 limits the opacity from the woodworking operations to 20 percent, except during one six-minute period in any hour of not more than 60 percent opacity. This condition applies at all times except startup, shutdown, and malfunction.

#### **Monitoring & Recordkeeping:**

Baghouses are easily capable of meeting the 0.05 grains per standard cubic foot of exhaust gas

particulate standard. BACT for new furniture plant baghouses is 0.01 grains. Compliance with the 0.05 grain standard and the opacity limits will be demonstrated by weekly opacity checks.

Condition 22 of the NSR permit issued November 18, 2005 requires proper operation and maintenance of pollution control equipment. The permittee is to have available written operating procedures for the air pollution control equipment and operators are to be trained in the proper operation of the units. The permittee is to maintain records of training provided, including names of trainees and the date and nature of the training.

The facility is a major source subject to Title V permitting and therefore subject to 40 CFR Part 64 - Compliance Assurance Monitoring (CAM). An emission unit is subject to CAM if it meets all of the following criteria on a pollutant-by-pollutant basis:

- a. Emits or has the potential to emit uncontrolled quantities of one or more regulated air pollutants at or above major source levels,
- b. Is subject to one or more emissions limitations for the regulated air pollutants for which it is major before control, and
- c. Uses an add-on control device to achieve compliance with the emissions limitations.

The various pieces of woodworking equipment (saws, sanders, jointers, etc.) are emission units which emit particulates that are controlled by baghouses (I.D. Nos. CD-BH1, CD-BH2, CD-BH3, and CD-BH4) that meet all of the above criteria as follows:

- a. The woodworking equipment emits uncontrolled quantities of particulate matter above major source levels.
- b. The woodworking equipment is subject to an emissions limit for particulate matter .
- c. The woodworking equipment uses baghouses to comply with the limit on particulate matter.

The permittee shall use a magnehelic gauge as a pressure drop indicator for the baghouses on the woodworking equipment. The permittee will be required to monitor, operate, calibrate and maintain the devices according to the CAM plan in Section V.C. of the Title V permit.

The periodic monitoring also requires weekly visible emission checks. Requirements are as stated in Section V.B.2. of the Title V permit. Recordkeeping requirements associated with the CAM and periodic monitoring are as stated in the Title V permit.

### **Testing:**

The permit does not require source testing. A table of test methods has been included in the permit if testing is performed. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

### **Streamlined Requirements:**

There are no streamlined requirements for the woodworking operations.



## **Gluing Operations**

### **Limitations:**

The following limitations are State BACT requirements from Conditions 2, 7, 8, and 14 of the Minor NSR Permit issued on November 18, 2005:

- Condition 2 specifies that the particulate and PM10 emissions from the Virginia Blower glue spray booths are to be controlled by fiberglass filters, or equivalent. The spray booths and filter systems are to be provided with adequate access for inspection.
- Condition 7 limits the production of veneer through the glue spray booths to 15,750,000 board feet per year.
- Condition 8 limits the consumption of Borden TS-44(F) UF resin powder (as mixed in aqueous compound), or equivalent, to 12.5 pounds per hour and 13 tons per year.
- Condition 14 limits visible emissions from the exhausts on the two Virginia Blower glue spray booths to 5 percent opacity.

### **Monitoring & Recordkeeping:**

As required in Condition 17 of the NSR permit issued November 18, 2005, Vaughan Furniture Company shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with the NSR permit. These records shall include the production of veneer, the hours of operation of the two Virginia Blower glue spray booths, and the consumption of Borden TS-44(F) UF resin powder, or equivalent. Hourly throughput and emissions shall be calculated by dividing the total daily throughput by the corresponding hours of booth operation. Annual throughput and emissions shall be calculated monthly as the sum of each consecutive 12 month period. These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

Compliance with the adhesive consumption limits, will be demonstrated through these recordkeeping requirements.

### **MACT Requirements – Veneer Face Manufacturing Operations**

The Maximum Achievable Control Technology (MACT) Standard for plywood and composite wood manufacturers, under 40 CFR 63, Subpart DDDD (National Emission Standards for Hazardous Air Pollutants for Plywood and Composite Wood Products), was promulgated on June 30, 2004, and is applicable to this facility per 40 CFR 63.2231. This facility has kilns and presses and performs veneer face manufacturing operations. Requirements are listed in Section VII.A. of the Title V permit.

### **Testing:**

The permit does not require source tests. A table of test methods has been included in the permit if testing is performed. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

### **Streamlined Requirements:**

There are no streamlined requirements for the gluing operations.

## Finishing Operations

### Limitations:

The spray booths on the furniture finishing line are all existing emission units, with no applicable requirements (except SB-100) in the November 18, 2005 NSR permit.

- 9 VAC 5-40-80 limits visible emissions to not more than 20% opacity, except for one six-minute period in any one hour of not more than 60% opacity.
- 9 VAC 5-40-20 (Compliance) and 9 VAC 5-40-90 (Standards for Fugitive Dust/Emissions) apply.
- The National Emission Standards for Hazardous Air Pollutants (*NESHAP*) for Wood Furniture Manufacturing Operations (MACT Subpart JJ 40CFR63.800 through 40CFR63.819) apply.
- 9 VAC 5-40-260 (Standard for Particulate Matter) applies. The hourly limit on PM emissions from the spray booths is based on the rate at which the furniture passes through each booth. The hourly limit (E) is calculated according to the following equation:

$$E = 4.10 * P^{0.67}$$

Where: E = PM emission rate, in lbs/hr  
P = Process weight rate in tons/hr

For wood-coating spray booth SB-100 from the NSR permit issued November 18, 2005:

- Condition 2 specifies that the particulate and PM10 emissions from the wood-coating spray booth SB-100 are to be controlled by fiberglass filters, or equivalent. The spray booth and filter system are to be provided with adequate access for inspection.
- Condition 5 specifies that the wood-coating spray booth SB-100 shall not apply coatings that contain more than 8.5 lbs of volatile organic compounds (VOC) per gallon and not more than 8.5 lbs of solids per gallon, as applied.
- Condition 6 specifies that the wood-coating spray booth (SB-100) shall not apply more than 100 gallons of coatings per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
- Condition 13 specifies that visible emissions from the wood-coating spray booth (SB-100) shall not exceed 5 percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A).

### Monitoring & Recordkeeping:

Monthly records of coating consumption, cumulative hours of production line operation, and weight of furniture produced, will be used to demonstrate compliance with the particulate (PM) emission limits of 9 VAC 5-40-260. The hourly process weight rate will be determined from the total weight of furniture produced, divided by the hours of production line operation.

Compliance with the calculated allowable hourly PM emission rate will be demonstrated by calculating the monthly particulate emissions from each booth, divided by the monthly hours of production line operation. Monthly particulate emission calculations will be based on individual coating consumption, coating solids content, particulate transfer efficiency (50%), and particulate capture efficiency of the control device (if any). For wood-coating spray booth SB-100, the annual gallons of coatings applied in the spray booth shall be calculated monthly as the

sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 12 months.

MACT Subpart JJ contains several recordkeeping requirements for demonstrating continuous compliance with the appropriate VHAP limits on the various coatings and adhesives used at the facility. These recordkeeping requirements include maintaining copies of the following:

- A certified product data sheet for each finishing material, thinner, contact adhesive, and strippable spray booth coating subject to the emission limits in Subpart JJ;
- The VHAP content, in lb VHAP/lb solids, as applied, of each finishing material and contact adhesive subject to the emission limits in Subpart JJ;
- The VOC content, in lb VOC/lb solids, as applied, of each strippable booth coating subject to the emission limits in Subpart JJ;
- The monthly calculations and/or supporting data demonstrating compliance with the appropriate VHAP limits.
- The permittee shall maintain onsite the work practice implementation plan and all records associated with fulfilling the requirements of that plan (such as training records, inspection & maintenance plan, formulation assessment plan, etc.);
- The permittee shall maintain records of the compliance certifications submitted for each semiannual period following the compliance date, and records of all other information submitted with the compliance status report and the semiannual reports.
- All required information (including all reports and notifications) must be recorded in a form suitable and readily available for expeditious inspection and review. The files must be retained for at least 5 years. At a minimum, the most recent 2 years of data is to be retained on site, while the remaining 3 years of data may be retained off site. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.

Weekly opacity checks will be conducted to demonstrate compliance with the 20% opacity limit.

### **Testing:**

The permit does not require source tests. A table of test methods has been included in the permit if testing is performed. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

### **Streamlined Requirements:**

There are no streamlined requirements for the woodworking operations.

## **FACILITY-WIDE REQUIREMENTS**

### **Limitations:**

Visible Emissions: (9 VAC 5-40-80 - Standard for Visible Emissions) No owner or other person shall cause or permit to be discharged into the atmosphere from any affected facility any visible emissions which exhibit greater than 20% opacity, except for one six-minute period in any hour of not more than 60% opacity. Failure to meet these requirements due to the presence of water vapor shall not be seen as a violation.

Testing/Monitoring Ports: The permitted facility shall be constructed so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods. Test ports shall be provided when requested at the appropriate locations.

**Monitoring & Recordkeeping:**

9 VAC 5-40-50, 9 VAC 5-50-50, and 9 VAC 5-80-110 require that records of all emissions data and operating parameters necessary to demonstrate compliance with the permit, be maintained.

**Testing:**

The permit does not require facility-wide source testing. A table of test methods has been included in the permit if testing is performed. The Department and EPA have authority to require testing not included in this permit, if necessary to determine compliance with an emission limit or standard.

**Reporting:**

Condition 23 of the NSR permit dated November 18, 2005, requires that the DEQ Director be notified within four business hours if the permitted facility or related air pollution control equipment causes excess emissions for more than one hour. The portion of the facility subject to the Virginia Toxics Rule, shall shut down immediately upon the request of DEQ. The owner shall provide a written statement within 14 days explaining the problem, corrective actions taken, and the estimated duration of the malfunction.

**Streamlined Requirements:**

There are no facility-wide streamlined requirements.

**GENERAL CONDITIONS**

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110 that apply to all Federal-operating permitted sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions.

**B. Permit Expiration**

This condition refers to the Board taking action on a permit application. The Board is the State Air Pollution Control Board. The authority to take action on permit application(s) has been delegated to the Regions as allowed by §§2.1-20.01:2 and §§10.1-1185 of the *Code of Virginia*, and the "Department of Environmental Quality Agency Policy Statement NO. 3-2001".

**F. Failure/Malfunction Reporting**

Section 9 VAC 5-20-180 requires malfunction and excess emission reporting within four hours of discovery. Section 9 VAC 5-80-250 of the Title V regulations also requires malfunction reporting; however, reporting is required within two days. Section 9 VAC 5-20-180 is from the general regulations. All affected facilities are subject to section 9 VAC 5-20-180 including Title V facilities. Section 9 VAC 5-80-250 is from the Title V regulations. Title V facilities are subject to both sections. A facility may make a single report that meets the requirements of 9 VAC 5-20-180 and 9 VAC 5-80-250. The report must be made within four daytime business hours of discovery of the malfunction.

#### **U. Malfunction as an Affirmative Defense**

The regulations contain two reporting requirements for malfunctions that coincide. The reporting requirements are listed in sections 9 VAC 5-80-250 and 9 VAC 5-20-180. The malfunction requirements are listed in General Condition U and General Condition F. For further explanation see the comments on General Condition F.

#### **Y. Asbestos Requirements**

The Virginia Department of Labor and Industry under Section 40.1-51.20 of the Code of Virginia also holds authority to enforce 40 CFR 61 Subpart M, National Emission Standards for Asbestos.

#### **STATE-ONLY APPLICABLE REQUIREMENTS**

The following Virginia Administrative Code has specific requirements only enforceable by the State and have not been included in the Federal Operating Permit:

9 VAC 5-40-340 and 9 VAC 5-50-310, Standard for odor;  
9 VAC 5 Chapter 60, Part II, Article 4, *Emission Standards for Toxic Pollutants from Existing Sources (Rule 6-4)*; and,  
9 VAC 5 Chapter 60, Part II, Article 5, *Emission Standards for Toxic Pollutants from New and Modified Sources (Rule 6-5)*.

#### **FUTURE APPLICABLE REQUIREMENTS**

There are no known future applicable requirements for this facility.

#### **INAPPLICABLE REQUIREMENTS**

The provisions of 9 VAC 5-40-300 (Standard for Volatile Organic Compounds) and 9 VAC 5-40-310 (Standard for Nitrogen Oxides) are not appropriate since the B.C. Vaughan Plant is not located in the Northern Virginia Emissions Control Area. NSPS Subpart Dc does not apply to either of the boilers since they were installed prior to June of 1989.

The startup, shut down, and malfunction opacity exclusion listed in 9 VAC 5-40-20 A 3 cannot be included in any Title V permit. This portion of the regulation is not part of the federally approved state implementation plan. The opacity standard applies to existing sources at all times including startup, shutdown, and malfunction. Opacity exceedances during malfunction can be affirmatively defended provided all requirements of the affirmative defense section of this permit are met. Opacity exceedances during startup and shut down will be reviewed with enforcement discretion using the requirements of 9 VAC 5-40-20 E, which state that "At all times, including periods of startup, shutdown, soot blowing and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions.

#### **INSIGNIFICANT EMISSION UNITS**

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

Insignificant emission units include the following:

Emission Unit No.	Emission Unit Description	Pollutant Emitted (5-80-720 B.)
K1 – K6	Dry Kilns (5 w/ 55,000 bd.ft capacity & 1 w/ 78,000 bd.ft capacity)	VOC
S1	Wood Silo (boiler fuel)	PM / PM <sub>10</sub>
S2	Coal Silo (boiler fuel)	PM / PM <sub>10</sub>
PW	Parts Washer (Maintenance Shop)	VOC
The regulatory citation for each of the insignificant activities is 9 VAC 5-80-720B – Insignificant due to emission levels.		

### CONFIDENTIAL INFORMATION

The permittee did not submit a request for confidentiality. All portions of the Title V application are available for public review.

### PUBLIC PARTICIPATION

A public notice appeared in *The Galax Gazette* on July 28, 2006 announcing a 30-day public comment period for this permit. The public comment period extended until August 28, 2006. Notice was also provided to North Carolina, Tennessee, and West Virginia as affected states. No comments or hearing requests were received.

**COMMONWEALTH OF VIRGINIA  
Department of Environmental Quality  
Southwest Regional Office**

**STATEMENT OF LEGAL AND FACTUAL BASIS  
Minor Modification**

Vaughan Furniture Company, Inc.  
B.C. Vaughan Plant  
Creekview Drive, Galax, Virginia  
Permit No. SWRO10443  
Effective Date: September 13, 2006  
Expiration Date: September 12, 2011

In accordance with 40 CFR Part 70 and 9 VAC 5 Chapter 80, Vaughan Furniture Company, Inc. has applied for a minor modification to the Title V operating permit. The Department has reviewed the application and has prepared a minor modification to the Title V operating permit.

Engineer/Permit Contact: \_\_\_\_\_ Date: March 25, 2008

Air Permit Manager: \_\_\_\_\_ Date: March 25, 2008

Regional Director: \_\_\_\_\_ Date: March 25, 2008

## **REQUESTED MODIFICATION**

On September 17, 2007, the Southwest Regional Office received a request from Vaughan Furniture Company, Inc. for a minor modification to the Title V operating permit for their B.C. Vaughan Plant located at Creekview Drive, Galax, Virginia. The permittee requests the removal of all permit requirements based on the National Emission Standards for Hazardous Air Pollutants for Industrial/Commercial/Institutional Boilers and Process Heaters, 40 CFR part 63, subpart DDDDD (Boiler Rule).

## **REASON FOR MODIFICATION**

On July 30, 2007, the Court of Appeals for the District of Columbia Circuit issued its mandate in Natural Resources Defense Council versus U.S. EPA, vacating the Boiler Rule. Since the Boiler Rule has been vacated, requirements based on the Boiler Rule do not apply.

## **APPLICABILITY OF 9 VAC 5-80-210**

In accordance with 9 VAC 5-80-210 A, minor permit modification procedures shall be used only for those permit modifications that:

1. Do not violate any applicable requirements;
2. Do not involve significant changes to existing monitoring, reporting, or recordkeeping requirements in the permit such as a change to the method of monitoring to be used, a change to the method of demonstrating compliance or a relaxation of reporting or recordkeeping requirements;
3. Do not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis;
4. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable federal requirement and that the source has assumed to avoid an applicable federal requirement to which the source would otherwise be subject.
5. Are not Title I modifications; and
6. Are not required to be processed as a significant modification under 9 VAC 5-80-230 or as an administrative permit amendment under 9 VAC 5-80-200.



## **CHANGES TO THE TITLE V OPERATING PERMIT**

Boilers B1 and B2 are the only emission units at the facility that were subject to the Boiler Rule. Conditions IV.A through IV.G, which contained the Boiler Rule requirements once applicable to boilers B1 and B2, have been removed from the permit.

The title of the Responsible Official has been revised to President as indicated in a submittal from the permittee dated January 28, 2008.

## **PUBLIC PARTICIPATION**

In accordance with 9 VAC 5-80-210 D, the public participation requirements of 9 VAC 5-80-270 shall not extend to minor permit modifications. Therefore, a public notice is not required.

In accordance with 9 VAC 5-80-290 A.1, a copy of the proposed minor permit modification was submitted by e-mail to the United States Environmental Protection Agency (USEPA) on February 5, 2008, for the required 45-day review. No comments were received from the USEPA concerning the proposed minor modification within the 45-day review period.